

# **Environmental Evaluation of Major Capital Projects**

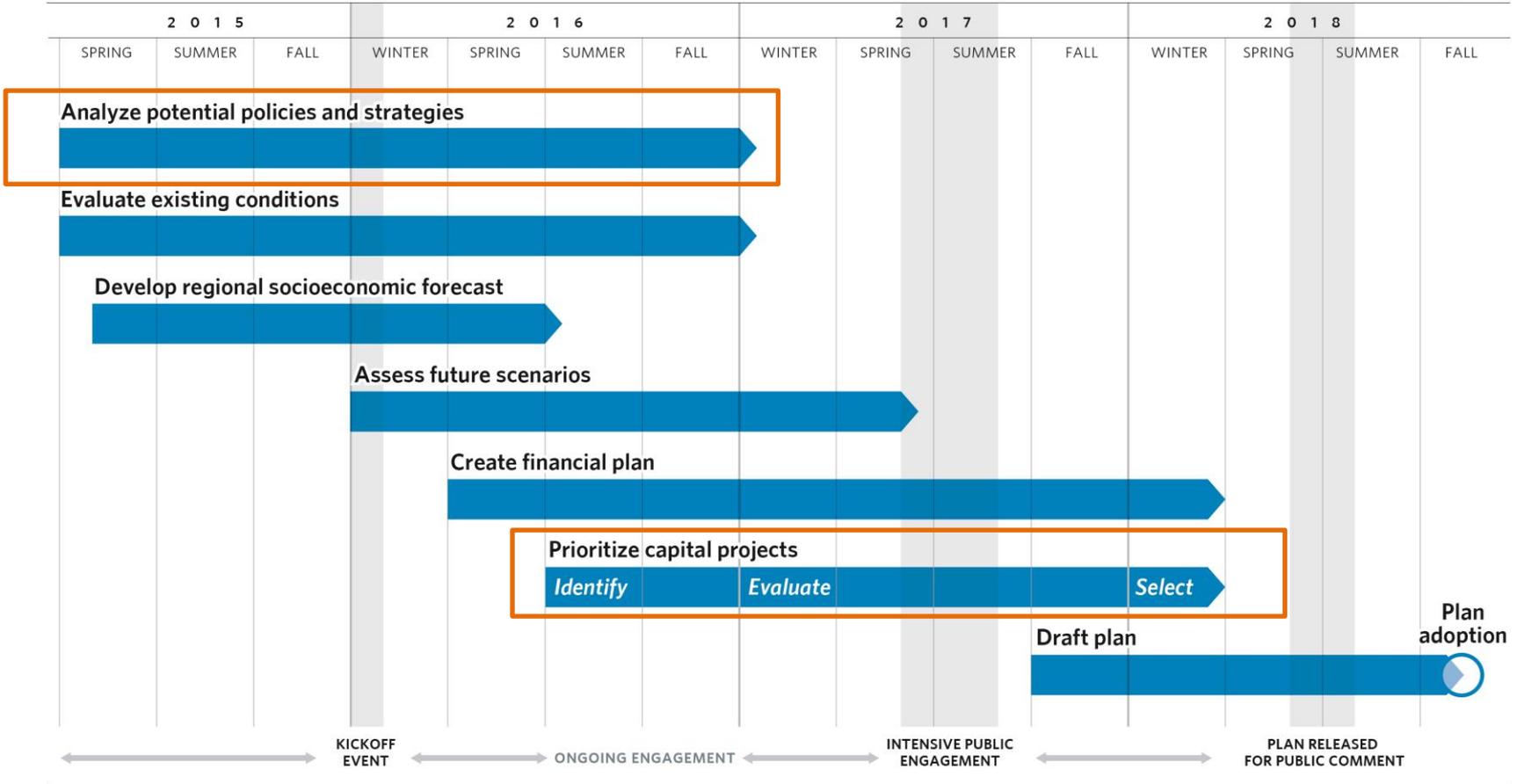
Environment and Natural Resources Committee | October 7, 2015

# Project Background

- CMAP laying groundwork for capital project evaluation process for next regional plan
- Emphasis will be on making cooperative, transparent, and prioritized decisions, using the best evaluation criteria possible.
- Staff seeking potential enhancements to analysis of economic and environmental effects of transportation projects.
- May also consider using new methods for CMAQ/TAP if appropriate

# Planning Process

## CMAP comprehensive plan development timeline



Source: Chicago Metropolitan Agency for Planning.

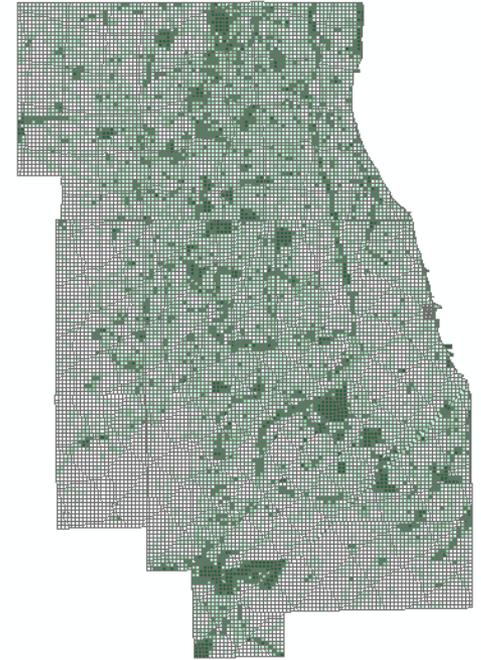
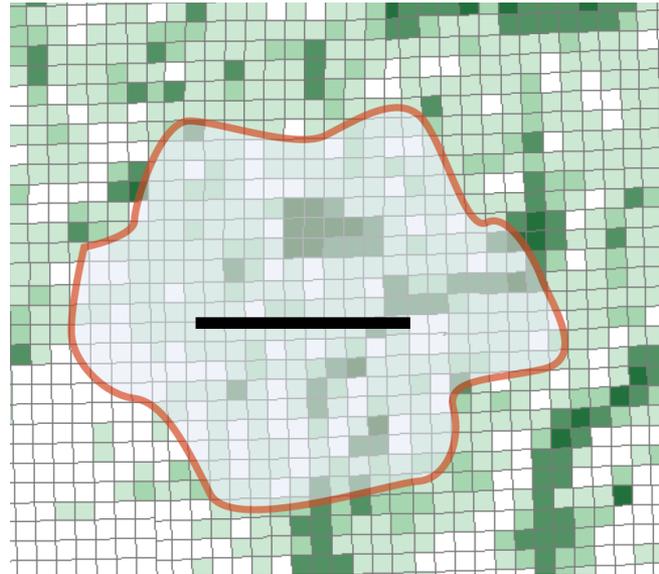
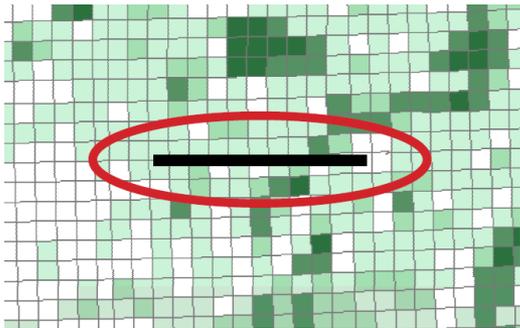
# Project Process

- Summarize previous CMAP analysis of Major Capital Projects
- Review approaches from other states and regions
- Provide a list of potential areas of focus

ENR committee for guidance

Develop and refine methods

# Three Scales



## Three Broad Categories and One Theme

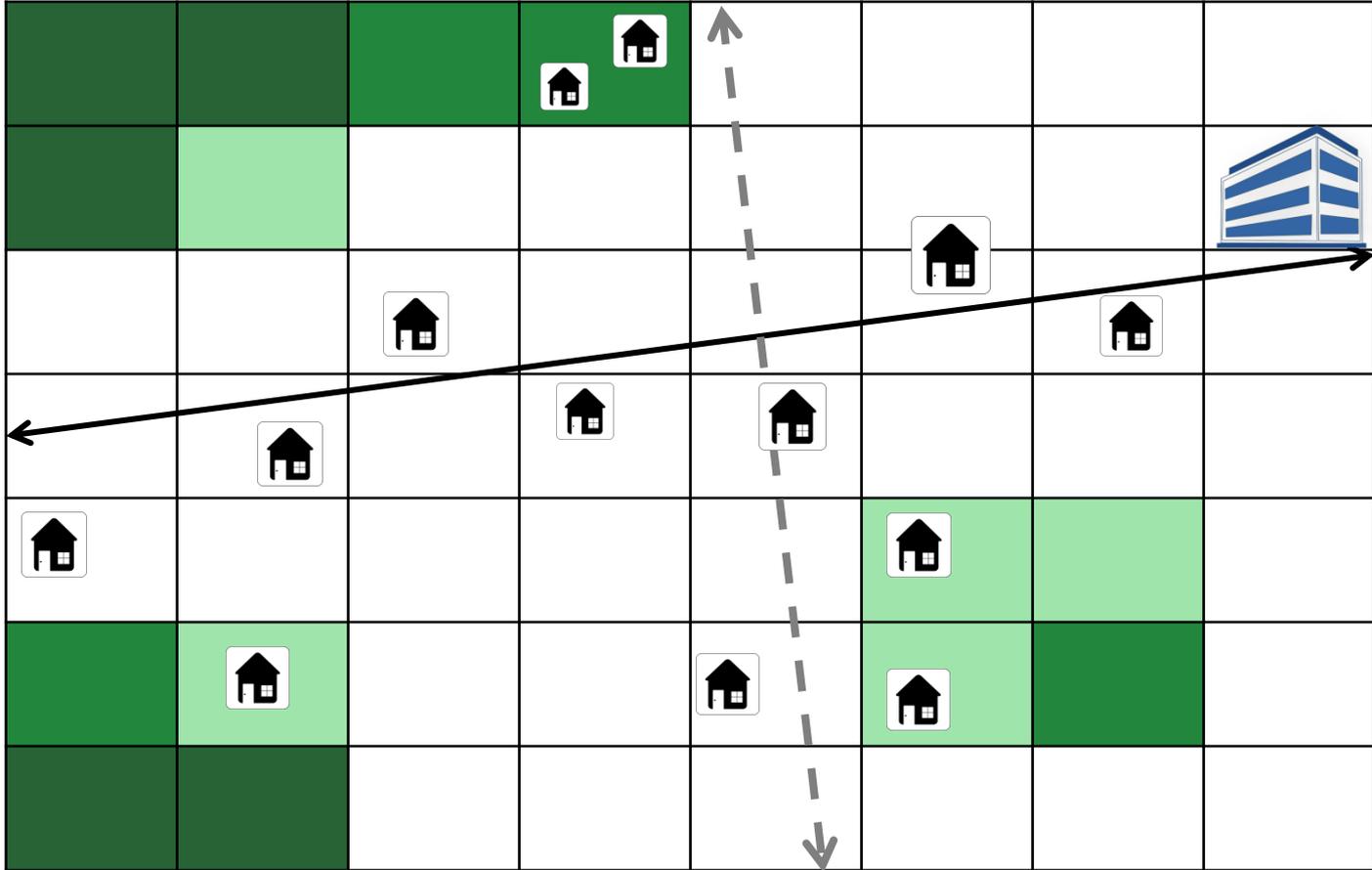
Land | Water | Air  
Environmental Justice

# Current CMAP Analysis

## Land

### Development of Green Infrastructure Vision lands

Change in number of households in transportation subzones that have GIV area greater than 50%.



# Current CMAP Analysis

## Water

### Runoff pollution

- Direct: Increased acres of impervious cover caused by project footprint.
- Indirect: Increased acres of impervious cover caused by the change in number of households and jobs

# Current CMAP Analysis

## Air

### Greenhouse Gas Emissions

- Regional change in greenhouse gas emissions caused by changes in congestion and vehicle miles traveled
- Proxy for other air pollutants (ozone precursors and PM 2.5)

# Current CMAP Analysis

## Environmental Justice

### Job Access for Environmental Justice Populations

- Change in accessibility to work for residents of environmental justice communities
- CMAQ analysis evaluates impact on “sensitive populations”-tracts with a high proportion of residents over 65, under 5, minority, and low income

# Questions and Discussion

**Regional Evaluation:** Need to design an evaluation system that can handle the common information we have between projects and between regional datasets.

**“Umbrella” Evaluation:** Need to capture the impacts with efficiency. Goal is to identify the factors that play the largest role, or can act as an ‘umbrella’ for other impacts in the analysis.

# Things to Consider

## Land

- Should land within the GIV be weighted differently?
- Should we capture ecosystem fragmentation?
- Should agricultural lands be included here as well?

# Things to Consider

## Water

- Should we be capturing *where* the runoff is going?
  - Ex: watershed basins, Biologically Significant Streams
- Groundwater impacts?
  - Development in areas facing groundwater drawdowns?
  - Potential for groundwater pollution?
- If we know of potential network problems due to existing road flooding, should we factor this in?

# Things to Consider

## Air

- Are there feasible ways to analyze sub-regional air quality variation caused by mobile sources?

# Things to Consider

## Environmental Justice

- Are there other demographic or environmental variables that should be included in definition of environmental justice communities?
- Are there other dimensions of accessibility that are important to measure?
- Are there environmental impacts on these communities that are particularly important to measure?

# Things to Consider

## Other

How could we look at the combined impacts of the projects?

# Next Steps

Draft Memo – late fall

Final Memo – early spring

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